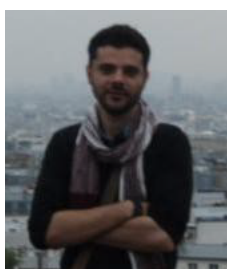


# Curriculum Vitae



## Theodore Patkos

### PERSONAL INFORMATION

Date of Birth: July 12, 1980  
Place of Birth: Thessaloniki,  
Greece

### CONTACT INFORMATION

E-mail: [patkos@csd.uoc.gr](mailto:patkos@csd.uoc.gr)  
Web-page: <http://www.csd.uoc.gr/~patkos>  
LinkedIn: <https://gr.linkedin.com/in/theodore-patkos-b55a4438>

#### Office

Postal Address: FORTH - ISL  
Office Gamma (Γ) 146  
N. Plastira 100,  
Vassilika Vouton 70013,  
Heraklion, Crete,  
Greece  
Telephone: (+30) 2811392754

#### Home

Postal Address: Rodon 12,  
71306,  
Heraklion, Crete,  
Greece  
Telephone: (+30) 2813010660

### WORK EXPERIENCE

#### Current

2020-present: Principal Researcher (Grade B') on Logic-based AI, with emphasis on Semantic Representations and Calculi for Dynamic Environments, **Foundation for Research and Technology – Hellas (FO.R.T.H.)**  
<https://www.ics.forth.gr/>  
2014-present: Visiting Instructor, Computer Science Department (CSD) – Post-graduate Program, **University of Crete**  
<https://www.csd.uoc.gr/>

#### Past

2013-2020: Post-doctoral Researcher, Information Systems Laboratory (I.S.L.), Institute of Computer Science (I.C.S.), **Foundation for Research and Technology – Hellas (FO.R.T.H.)**  
<https://www.ics.forth.gr/isl/>  
2011-2013: Post-doctoral Research Engineer, Laboratoire Images Signaux & Systèmes Intelligents of the Institute of Technology of Créteil-Vitry et **Université Paris Est Créteil**  
<https://www.lissi.fr/home/>  
2004-2010: Research Assistant, Information Systems Laboratory (I.S.L.), Institute of Computer Science (I.C.S.), **Foundation for Research and Technology – Hellas (FO.R.T.H.)**  
<https://www.ics.forth.gr/isl/>

### EDUCATION

2005-2010: Ph.D. in Computer Science, Computer Science Department, **University of Crete**  
Topic: “A Formal Theory for Reasoning about Action, Knowledge and Time”  
Supervisor: Professor Dimitris Plexousakis  
Scientific Areas: Cognitive Robotics, Ambient Intelligence, Action Theories, Context-aware Computing  
2002-2004: M.Sc. in Information Systems, Computer Science Department, **University of Crete**  
Topic: “A Semantic Marketplace of Peers Hosting Negotiating Intelligent Agents”  
Supervisor: Associate Professor Dimitris Plexousakis  
Scientific Areas: Semantic Web, Intelligent Software Agents, Peer-to-peer Systems  
1998-2002: BS in Computer Science, Department of Informatics, **Aristotle University of Thessaloniki**

## LANGUAGE CERTIFICATIONS

English:	Certificate of Proficiency in English, Michigan University Certificate in Advanced English, Cambridge University
German:	Zertifikat Deutsch als Fremdsprache (Grundstufe)

## AWARDS & SCHOLARSHIPS

2024	<b>Most Downloaded Paper</b> of the Knowledge Engineering Review Journal for 2023, for the paper “Argumentation and Explainable Artificial Intelligence: a Survey”, with Alexandros Vassiliades and Nick Bassiliades (1 <sup>st</sup> in the top ten list)
2022	<b>Best Paper Award</b> , with Elisjana Ymeralli, Giorgos Flouris, Vasilis Efthymiou, Katerina Papantoniou, Georgios Petasis, Nikiforos Pittaras, Giannis Roussakis, Elias Tzortzakakis, at the 16 <sup>th</sup> International Conference on Advances in Semantic Processing (SEMAPRO 2022), for the paper “Representing Online Debates in the Context of E-Journalism”.
2021	<b>Best Paper Award</b> , with Alexandros Vassiliades, Giorgos Flouris, Antonis Bikakis, Nick Bassiliades and Dimitris Plexousakis, at the 4 <sup>th</sup> International Conference on Logic and Argumentation (CLAR 2021), Hangzhou, China, for the paper “A Multi Attack Argumentation Framework”.
2021	<b>Best Paper Award</b> , with Ioannis Chrysakis, Giorgos Flouris, Maria Makridaki, Yannis Roussakis, Georgios Samaritakis, Nikoleta Tsabanaki, Elias Tzortzakakis, Elisjana Ymeralli, Tom Seymoens, Anastasia Dimou and Ruben Verborgh at the 35 <sup>th</sup> Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec 2021), for the paper “A Rewarding Framework for Crowdsourcing to Increase Privacy Awareness”.
2018	<b>Best Poster &amp; Demo Award</b> , with Vangelis Kritsotakis, Yannis Roussakis and Maria Theodoridou, at the 14 <sup>th</sup> SEMANTiCS 2018 European conference on Semantic Technologies and AI, for the contribution “Assistive Query Building for Semantic Data”.
2012	<b>Best Paper Award</b> with Abdelghani Chibani, Dimitris Plexousakis and Yacine Amirat) at the 6 <sup>th</sup> International Symposium on Rules (RuleML'12), for the paper “A Production Rule-based Framework for Causal and Epistemic Reasoning”, which was invited for presentation in the Subarea Spotlight Track of the 26 <sup>th</sup> Conference on Artificial Intelligence (AAAI'12)
2009 - 2010	“ <b>Manasaki</b> ” <b>Fellowship</b> , by the University of Crete, for excellence in doctoral studies.
2008	<b>Best Student Paper Award</b> (with Dimitris Plexousakis) at the 5 <sup>th</sup> Hellenic Conference on Artificial Intelligence, SETN'08, for the paper “A Theory of Action, Knowledge and Time in the Event Calculus”.
2004 - 2010	<b>Student/Researcher Scholarship</b> by the Institute of Computer Science, FORTH

## RESEARCH PROJECTS

2020-2023	<i>Message In A Bottle (RIS3Crete - KPHP1-0028556)</i> The project will develop a complete information system for supporting all processes related to wine production, offering services relevant both to the consumer and to the producer. <b>Role (proposal-time):</b> Participated in proposal writing <b>Role (project time):</b> Researcher in the fields of KR&R and the Semantic Web.
2020-2023	<i>DebateLab (HFRI/EI/AIEK - 4195)</i> The project will develop theoretical and applied argumentation tools that will pave the way for the vision of an Argument Web. The project’s use cases revolve around the domain of eJournalism. <b>Role (proposal-time):</b> Proposal Co-coordinator <b>Role (project time):</b> Researcher in the fields of KR&R, Computational Argumentation and the Semantic Web.
2018-2022	<i>SoCoLA (HFRI/EI/AIEK - 188)</i> The project developed a framework for intelligent agents with social and cognitive skills, within the field of Social Robotics. <b>Role (proposal-time):</b> Proposal Coordinator <b>Role (project time):</b> Principal Investigator of the project, involving 4 Researchers, 2 PhD students, 2 MSc students.
2019-2020	<i>CAP-A (NGI-Trust Open Call - 11)</i> The project developed tools for empowering the role of human users in promoting privacy when using digital services. <b>Role (proposal-time):</b> Proposal Co-coordinator <b>Role (project time):</b> Scientific Coordinator of the project

- 2015-2018 *VRE4EIC (H2020-EU.1.4.1.3.- 676247)*. The project aimed to develop a reference architecture and prototypes to be used for future VREs including building blocks that can be used to improve existing VREs. The project addressed the key data and software challenges in supporting multidisciplinary data driven sciences.  
**Role (proposal-time):** Coordinated FORTH during proposal writing  
**Role (project time):** (as of June 2018) Scientific Coordinator of FORTH (before June 2018) Researcher – Design and Implementation of mapping methodologies for enhancing interoperability between diverse knowledge sources.
- 2013-2016 *Lifewatch (NSRF/ΕΣΠΙΑ - 384676)*. The overall objective of the project is to ally all the Greek scientific human potential working on Biodiversity data and data observatories, in Greece and abroad, in order to achieve a world-class excellence national LifeWatch Centre.  
**Role (project time):** Researcher – Design and Implementation of a statistical analysis environment for parallel computing.
- 2013-2015 *EICOS - Foundations for perSONalized Cooperative Information Ecosystems* (funded by "Thalis" call of Ministry of Education, operation programme "Education and Lifelong Learning, NSRF 2007 -2013): The aim of EICOS was to provide the methodology, the theoretical and modeling foundations as well as the algorithmic techniques and the necessary software architecture that will facilitate the personalization, integration, and evolution management facilities for information ecosystems  
**Role (project time):** Researcher – Design of modeling methodologies
- 2013-2015 *Multi-Context Reasoning in Heterogeneous Environments, Slovak-Greece Research and Development Cooperation (GGET 12SLO\_ET29\_1087)*. The aim of the project is the development of a framework for defeasible reasoning in multi-agent heterogeneous environments in the context of smart spaces.  
**Role:** Post-doctoral researcher – Knowledge Representation and Reasoning
- 2011-2013 *Predykot (ITEA 2 - 10035)*. The project aims to provide an innovative, modular and consistent suite to ensure that a policy (access control security, SLA etc) remains efficient whatever changes occur to it: administrative, contextual etc.  
**Role:** Researcher – Semantic Knowledge Representation and Reasoning with Formal Methods
- 2011-2013 *A2Nets (ITEA 2 - 09031)*. The project aims to apply autonomic computing and communication paradigms in the context of M2M networks and enable interoperability between different vertical domain M2M applications and services.  
**Role:** Researcher – Semantic Knowledge Representation and Reasoning
- 2011-2013 *Web of Objects (ITEA 2 - 10028)*. The project’s goal is to turn up the Internet of Things promises by simplifying object and application deployment, commissioning, maintenance, operation and service composition inside building infrastructures.  
**Role:** Researcher – Semantic Knowledge Representation and Reasoning
- 2007-2010 *Ambient Intelligence (AmI) Programme*. Served as workpackage leader and coordinator of WP5 “Information Representation and Management” in the multi-disciplinary Ambient Intelligence project. The responsibility of the group was to develop a semantics-based reasoning framework for context-aware smart spaces (other members were 2 Professors, 1 PhD candidate, 2 R&D engineers and several undergraduate and postgraduate students). Funded by the Foundation for Research and Technology, Hellas.  
**Role:** Researcher, WP leader
- 2009 *S-Cube*. I was involved in the European Network of Excellence in Software Services and Systems (S-Cube), which aims at establishing a research community to contribute in and reshape the field of software services and systems. Funded by the European Community's 7<sup>th</sup> Framework Programme FP7/2007-2013.
- 2003 *Crisatel*. As a post-graduate student, I was involved in the “Conservation Restoration Innovation Systems for image capture and digital archiving to enhance Training, Education and longlife Learning” project, which aimed at developing a technology and information environment to preserve paintings and the created digital resources in long terms. Funded under EU-IST 5th Framework Programme.

## APPLIED RESEARCH AND INNOVATION

- 2019-present *ECAVI* – An educational platform and an IDE for designing Event Calculus theories.  
Synergies: OMiLAB NPO
- 2016-present *Le Sommelier* (<https://www.lesommelier.gr/>) – A Personal Wine Assistant reasoning system, applying ASP reasoning for food-wine pairing.  
Synergies: Opus Wine Bar, Super Market Xalkiadakis, Cinque Wine and Deli Bar, H2B Hub
- 2017-present *CAPrice* (<https://www.caprice-community.net/>) – A collective awareness platform for privacy concerns and expectations.  
Synergies: Supported by a grassroots community comprising more than 800 individuals.
- 2016-present *Apopsis* (<http://139.91.183.40:8080/apopsis/home.jsp>) – A debate portal applying argumentative reasoning based on the smDice framework and Machine Learning for the analysis of dialogues.
- 2016-2019 *Methinks* (<https://methinks.ics.forth.gr/>) – A review management system applying the smDice framework for evaluating online comments.  
Synergies: Marin Hotel, EyeWide Digital Marketing Agency

## RESEARCH INTERESTS

### Scientific Fields

- Symbolic/Logic-based Artificial Intelligence
- Knowledge Representation and Reasoning, Non-monotonic Reasoning
- Causal Reasoning and Action Theories
- Computational Argumentation
- Intelligent Software Agents
- Semantic Web

### Application Domains

- Logic Programming (Prolog, ASP)
- Cognitive Robotics
- Social Robotics/Human-Robot Interaction
- Ambient Intelligence
- Context-aware Computing
- Collective Intelligence
- Peer-to-peer Systems

## SCIENTIFIC ACTIVITIES

- Co-organizer and Moderator of Theme #1 on Trustworthy and Reliable Human-Machine Symbiotic Collaboration, of the **5<sup>th</sup> ERCIM/JST Joint Workshop 2024** (<https://www.ercim.eu/events/5th-ercim-jst-joint-workshop-2024>)
- Member of the Review Board Panel, HFRI, 2023-2024
- Co-organizer of Theme #1 on Trustworthy and Reliable Human-Machine Symbiotic Collaboration, of the **4<sup>th</sup> ERCIM/JST Joint Workshop 2023**
- Guest editor of the **Cognitive AI and Cobots** special issue of the **ERCIM News magazine** (No.132, January 2023), with Zsolt Viharos (<https://www.ercim.eu/temp/EN132-draft.pdf>).
- Area Chair of Area 8 - Open Knowledge Graphs and Resources, at the China Conference on Knowledge Graph and Semantic Computing and International Joint Conference on Knowledge Graphs-Chongqing September 20-22, 2024
- Invited speaker at the 2<sup>nd</sup> Workshop on Trends and Advances in Machine Learning and Automated Reasoning for Intelligent Robots and Systems, at IROS 2022, Kyoto Japan, October 2022 (<http://www.iros-ar2022.lissi.fr/doku.php/talks>)
- Co-author of the Greek National Artificial Intelligence Strategy, 2020
- Co-chair of the **RuleML+RR 2017 Doctoral Consortium**, held in London, UK, with Antonis Bikakis (UCL)
- Co-chair of the 12<sup>th</sup> **International Symposium on Logical Formalizations of Commonsense Reasoning** (Commonsense 2015) held in Stanford, California, with Leora Morgenstern (Leidos) and Robert Sloan (University of Illinois at Chicago).
- Co-chair of the **RuleML 2014 Challenge** (8<sup>th</sup> International Rule Challenge) held in Prague, Czech Republic, in collocation with the 21<sup>st</sup> European Conference on Artificial Intelligence, with Adam Wyner (University of Aberdeen, UK) and Adrian Giurca (Brandenburg University of Technology Cottbus–Senftenberg, Germany).
- Co-chair of the **Special Session on Action Languages**, held in the 8th Hellenic Conference on Artificial Intelligence SETN'14, with Alexander Artikis (NCSR Demokritos, Greece), Marco Montali (Free University of Bozen-Bolzano, Italy) and Stavros Vassos (Sapienza University of Rome, Italy).
- Co-chair of the **Sensing, Reasoning and Actuation in Ubiquitous Systems and Cloud Robotics** track of the 4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks

(EUSPN'13), with Abdelghani Chibani (University of Paris-Est, France) and Eric Matson (Purdue University, USA)

Member of the **Hellenic Association for Artificial Intelligence (EETN)** (since 2006)

Served as reviewer or external reviewer in numerous journals and conferences, including:

- Research Track of the ESWC25
- 2<sup>nd</sup> International Workshop on Argumentation for eXplainable AI (ArgXAI24)
- 13<sup>th</sup> EETN Conference on Artificial Intelligence (SETN 2024)
- Argument and Computation Journal (2023)
- Theory and Practice in Logic Programming (2021-2022)
- The 11<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN'20)
- The 17<sup>th</sup> European Conference on Multi-Agent Systems (EUMAS-20)
- The 13<sup>th</sup> International Symposium on Commonsense Reasoning (Commonsense-17)
- The 25<sup>th</sup> International Joint Conference on Artificial Intelligence (IJCAI-16)
- The 9<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN'16)
- The ACM Transactions on Autonomous and Adaptive Systems (TAAS 2015)
- The RuleML Special Issue of the Theory and Practice in Logic Programming (2015)
- The International Web Rule Symposium (RuleML '13,14,15)
- The 7<sup>th</sup> Multi-Disciplinary International Workshop on Artificial Intelligence (MIWAI'13)
- Special Issue on Ubiquitous Networked Robots (UNR) of Journal Annals of Telecommunications- Springer (2011)
- International Journal on Artificial Intelligence Tools - IJAIT (2010)
- Annals of Mathematics and Artificial Intelligence (2009)
- Ontologies, DataBases, and Applications of Semantics (ODBASE'10)
- The IEEE International Conference on Web Services (ICWS'07)
- The IEEE Joint Conference on E-Commerce Technology (CEC'06) and Enterprise Computing, E-Commerce and E-Services (EEE'06)
- The 5<sup>th</sup> International Workshop on Agents and Peer-to-Peer Computing (AP2PC 2006)
- The 6<sup>th</sup> International Conference on Web Information Systems Engineering (WISE-05)
- The 2<sup>nd</sup> European Semantic Web Conference (ESWC-05)

Translated in Greek the second edition of Grigoris Antoniou and Frank van Harmelen's "A Semantic Web Primer", Klidarithmos edt. 2009 (in cooperation with PhD Student Stratos Kontopoulos).

## TEACHING EXPERIENCE

- 2017-present Visiting Instructor, Instructor of the post-graduate course HY-567 Knowledge Representation and Reasoning, Computer Science Department, University of Crete.
- 2014-2016 Visiting Instructor, co-instructor (with Prof. Dimitris Plexousakis) of the post-graduate course HY-567 Knowledge Representation and Reasoning, Computer Science Department, University of Crete.
- 2003-2010 Teaching Assistant in several courses related to Database Management Systems, Logic, Business Process and Workflow Management Systems, Data Structures, Discrete Mathematics and Programming in the Computer Science Department, University of Crete.
- 2008 Served as guest speaker in the seminar of KEK Training schools of Iraklio's Chamber in cooperation with the University of Crete titled "Business Process Management and e-Services" organized by the Regional Innovation Pole of Crete (September 2008).
- Invited Lecturer at the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> Next-Generation Enterprise Modelling in the Age of Internet of Things – Nemo Summer School (2016, 2017, 2018, 2019, 2021).

## STUDENT SUPERVISION

*PhD (4)*

- 2023-present **Mirto Villa** (PhD Student). Co-supervised with Prof. Panos Trahanias. Topic (tentative): Methods for Explaining the Behaviour of Graph Neural Networks
- 2019-2025 **Filippos Gouidis** (PhD Student). Co-supervised with Prof. Dimitris Plexousakis, Prof. Antonis Argyros and Dr. Giorgos Flouris. Topic: Combining Structured Knowledge and Data-driven Representations for Object States Classification

2019-2023 **Alexandros Vassiliades** (PhD Student). Co-supervised with Prof. Nick Bassiliades, Prof. Dimitris Plexousakis. Topic: Commonsense Reasoning with Knowledge Graphs and Computational Argumentation

2013-2019 **Dimitra Zografistou** (PhD Student). Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: ArgQL A Query Language for Computational Argumentation

*Postgraduates (15)*

2022-2023 **Sotiris Koumourou** (MSc Student). Co-supervised with Prof. Dimitris Plexousakis. Topic: A Commonsense Knowledge-Driven Framework for Part-of Relation Discovery in Images

2022-2023 **Christoforos Prasatzakis** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis. Topic: A Dialogue System for Human-Robot Interaction

2018-2019 **Nena Basina** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: An Event-Calculus Visual Assistant Environment

2018-2019 **Konstantinos Kreatsoulas** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: A Community Portal for Expressing Privacy Concerns and Expectations

2016-2018 **Nikolas Zourbakis** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis. Topic: Solving Simulated Application Scenarios with the use of Commonsense Reasoning.

2016-2017 **Tsabanaki Nikoleta** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: A Commonsense-Driven Model of Belief Revision for Dynamic Domains using the Event Calculus

2016-2017 **Lilitsis Prodromos** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: Travel Companion: A mobile system for trip assistance relying on Artificial Intelligence and Augmented Reality

2015-2016 **Ymerali Elisiana** (MSc Student) Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: A Web-based Platform for the Analysis of Structured Dialogues

2013-2015 **Filippos Goudis** (MSc Student), Co-supervised with Prof. Dimitris Plexousakis and Dr. Giorgos Flouris. Topic: Algorithms for Plan Repairing

2010-2011 **Xrysi Fillipaki** (MSc Student). Co-supervised with Prof. Grigoris Antoniou and Assist. Prof. Ioannis Tsamardinos. Topic: Rule-based Complex Event Detection.

2008-2009 **Ioannis Androulakis**, Co-supervised with Prof. Dimitris Plexousakis. Topic: A Semantic Peer-to-Peer Marketplace Hosting Trusted Negotiations Among Intelligent Agents.

2008-2009 **Lito Kriara** (MSc Student). Co-supervised with Prof. Dimitris Plexousakis, Prof. Grigoris Antoniou, Assist. Prof. Maria Papadopouli, PhD Student Antonis Bikakis. Topic: Experimenting with the Fingerprinting Method Using Signal-based Measurements for Providing Positioning Information to Location-based Applications.

2007-2008 **Maria Michou** (MSc Student). Co-supervised with Prof. Dimitris Plexousakis, Prof. Grigoris Antoniou, PhD Student Antonis Bikakis. Topic: A Semantics-based User Model for the Support of Personalized, Context-aware Navigation Services.

2007-2008 **Emmanouil Nikoloudakis** (MSc Student). Co-supervised with Prof. Dimitris Plexousakis, Prof. Grigoris Antoniou, PhD Student Antonis Bikakis. Topic: Semantics-based User Tracking and Dynamic Re-planning for a Contextual Guide.

2007-2008 **Emmanouil Kristotakis** (MSc Student). Co-supervised with Prof. Dimitris Plexousakis, Prof. Grigoris Antoniou, PhD Student Antonis Bikakis. Topic: Semantics-based Navigation for a Contextual Guide.

*Graduates (13)*

2024 **Farsarakis Stelios** (BSc Student) Topic (tentative): Methods for High-level Robot Navigation

2023 **Konstantinos Krouti** (BSc Student) Topic: Multi-Vehicle Routing Under Temporal Constraints with Neo4j and OpenRouteService

2023 **Qefalija Eltjon** (BSc Student) Topic: Extraction of Associations that Characterize Domestic Objects from the ConceptNet Knowledge Graph

2022 **Panagiotis Zois** (BSc Student) Topic: Responsive design using Bootstrap and grid design techniques and its application in Le Sommelier information system.

- 2019 **Georgia Markopoulou** (Supervised Study at FORTH - BSc Student at the Department of Information and Communication Systems Engineering, University of Aegean). Topic: Study on the capabilities of automated dialogue systems.
- 2017 **Manolis Dermitzakis** (BSc Student). Co-supervised with Dr. Giorgos Flouris and Prof. Dimitris Plexousakis. Topic: A semantics-enabled publication management portal.
- 2017 **Vaggelis Theodorakopoulos** (BSc Student) Co-supervised with Prof. Dimitris Plexousakis. Topic: An ASP University Scheduler
- 2015 **Georgios Smyrnaio**s (BSc Student). Co-supervised with Prof. Dimitris Plexousakis, Dr. Giorgos Flouris, Dr Irini Fundulaki and Dr Panagiotis Papadakos
- 2015 **Ioannis Moschonas** (BSc Student). Co-supervised with Prof. Dimitris Plexousakis, Dr. Giorgos Flouris, Dr Irini Fundulaki and Dr Panagiotis Papadakos
- 2015 **Nikoleta Tsabanaki** (BSc Student). Co-supervised with Prof. Dimitris Plexousakis. Le Sommelier - A prioritised Multi-Criteria Recommendation System for Wine Matching Using ASP.
- 2011 **Spyros Roussogiannakis** (BSc Student). Co-supervised with Prof. Dimitris Plexousakis, Topic: An Event Calculus Planner on top of DECReasoner.
- 2010 **Elena Epitropaki** (BSc Student). Co-supervised with Prof. Grigoris Antoniou and MSc Student Maria Michou. Topic: Rule-based context guide for portable devices.
- 2010 **Stavros Kirikos** (BSc Student). Co-supervised with Prof. Dimitris Plexousakis, Topic: Presentation and Benchmarking of DL Reasoners.

## PUBLICATIONS

### *Book Chapters (3)*

- Antonis Bikakis, Giorgos Flouris, Joao Leite, Theodore Patkos, **Social Argumentation Systems**, (in press) Dov Gabbay, Gabriele Kern-Isberner, Guillermo R. Simari and Matthias Thimm, eds. Handbook of Formal Argumentation, Volume 3, College Publications, 2025
- Nena Basina, Theodore Patkos, Dimitris Plexousakis, “**ECAVI- An Assistant for Reasoning about Actions and Change with the Event Calculus**”, In: Karagiannis, D., Lee, M., Hinkelmann, K., Utz, W. (eds) Domain-Specific Conceptual Modeling, pp. 457—477, Springer, Cham. 2022.
- Abdelghani Chibani, Antonis Bikakis, Theodore Patkos, Yacine Amirat, Sofiane Bouznad, Naouel Ayari, Lyazid Sabri, “**Using Cognitive Ubiquitous Robots for Assisting Dependent People in Smart Spaces**”, Intelligent Assistive Robots, Springer Tracts in Advanced Robotics Vol. 106, pp 297-316, 2015.

### *Peer-reviewed Journals, Conferences and Workshops (80)*

#### 2025

- Filippou Gouidis, Kostas Papoutsakis, Antonis Argyros, Theodore Patkos, Dimitris Plexousakis “**Recognizing Unseen States of Unknown Objects by Leveraging Knowledge Graphs**”, to be presented at the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025

#### 2024

- Alexandros Vassiliades, Theodore Patkos, Vasilis Efthymiou, Antonis Bikakis, Nick Bassiliades, Dimitris Plexousakis “**Extraction of object-action and object-state associations from Knowledge Graphs**”, Journal of Web Semantics, Volume 81, July 2024
- Filippou Gouidis, Katerina Papantoniou, Konstantinos Papoutsakis, Theodore Patkos, Antonis Argyros, Dimitris Plexousakis “**LLM-aided KG construction for Zero-Shot Visual Object State**”, to be presented at the IEEE 14<sup>th</sup> International Conference on Pattern Recognition Systems, ICPRS’24, 2024
- Filippou Gouidis, Kostas Papoutsakis, Theodore Patkos, Antonis Argyros, Dimitris Plexousakis, “**Exploring the Impact of Knowledge Graphs on Zero-Shot Visual Object State Classification**”, to be presented at the International Conference on Computer Vision Theory and Applications (VISAPP 2024), 2024
- Filippou Gouidis, Kostas Papoutsakis, Theodore Patkos, Antonis Argyros, Dimitris Plexousakis, “**Enabling Visual Intelligence by Leveraging Visual Object States in a Neurosymbolic Framework**”, to be presented at the 37<sup>th</sup> Australasian Joint Conference on Artificial Intelligence, AJCAI 2024
- Filippou Gouidis, Katerina Papantoniou, Konstantinos Papoutsakis, Theodore Patkos, Antonis Argyros, Dimitris Plexousakis, “**Fusing Domain-Specific Content from Large Language**

**Models into Knowledge Graphs for Enhanced Zero Shot Object State Classification**", to be presented at the AAAI Spring Symposium on Empowering Machine Learning and Large Language Models with Domain and Commonsense Knowledge (AAAI-MAKE 2024) 2024

## 2023

- Giorgos Flouris, Theodore Patkos, Antonis Bikakis, Alexandros Vassiliades, Nick Bassiliades, Dimitris Plexousakis, "**Theoretical Analysis and Implementation of Abstract Argumentation Frameworks with Domain Assignments**" International Journal of Approximate Reasoning, 2023. <https://doi.org/10.1016/j.ijar.2023.108992>
- Alexandros Vassiliades, Giorgos Flouris, Theodore Patkos, Antonis Bikakis, Nick Bassiliades, Dimitris Plexousakis, "**Argumentation Frameworks with Attack Classification**" Journal of Logic and Computation, Vol. 33, No. 2, pp. 192–229, March 2023.
- Antonis Bikakis, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis, "**Sketching the vision of the Web of Debates**" Journal of the Frontiers of AI, research topic on "Computational Argumentation: a foundation for Human-centric AI", Volume 6, 2023
- Panagiotis Papadakos, Ioannis Chrysakis, Theodore Patkos, Giorgos Flouris, Giorgos Samaritakis, Dimitris Angelakis, Nena Basina, Nikoleta Tsampanaki, Ariadne Pratikaki, Pavlos Baritakis, Ilias Loulakakis, Maria Gouma, Akis Kioupakis, Christina Apostolidi, Bart Lyrarakis, "**Message-in-a-bottle: engaging stories around sustainable and safe wine products**", Discover Sustainability Journal, Vol. 4, No. 43, 2023  
<https://doi.org/10.1007/s43621-023-00160-8>

## 2022

- Alexandros Vassiliades, Nikos Bassiliades, Theodore Patkos, "**An open-ended web knowledge retrieval framework for the household domain with explanation and learning through argumentation**", International Journal on Semantic Web and Information Systems (IJSWIS) Vol 18, No 1, 2022 DOI: 10.4018/IJSWIS.309421
- Filippos Gouidis, Theodore Patkos, Antonis Argyros, and Dimitris Plexousakis, "**Detecting Object States vs Detecting Objects: A New Dataset and a Quantitative Experimental Study**", In Proceedings of the 17<sup>th</sup> International Conference on Computer Vision Theory and Applications (VISAPP2022), Scitepress, pp. 590-600, 6-8 February, 2022.
- Filippos Gouidis, Alexandros Vassiliades, Nena Basina, and Theodore Patkos, "**Towards a Formal Framework for Social Robots with Theory of Mind**", In Proceedings of the 14<sup>th</sup> International Conference on Agents and Artificial Intelligence (ICAART'22), pp. 689-696, 3-5 February, 2022.
- Elisjana Ymeralli, Giorgos Flouris, Vasilis Efthymiou, Katerina Papantoniou, Theodore Patkos, Georgios Petasis, Nikiforos Pittaras, Giannis Roussakis, Elias Tzortzakakis. "**Representing Online Debates in the Context of E-Journalism**". In Proceedings of the 16<sup>th</sup> International Conference on Advances in Semantic Processing (SEMAPRO-22), 2022.  
*(Received a best paper award)*
- Ioannis Chrysakis, Panagiotis Papadakos, Theodore Patkos, Giorgos Flouris, Georgios Samaritakis, Dimitris Angelakis, Nikoleta Tsampanaki, Nena Basina, Pavlos Baritakis, Ariadne Pratikaki, Ilias Loulakakis, Bart Lyrarakis. "**Towards creating a customized wine story for engagement and transparency**" In Proceedings of the 10<sup>th</sup> International Conference on ICT in Agriculture, Food & Environment (HAICTA-22), 2022.
- Ioannis Chrysakis, Panagiotis Papadakos, Theodore Patkos, Giorgos Flouris, Georgios Samaritakis, Dimitris Angelakis, Nikoleta Tsampanaki, Nena Basina, Pavlos Baritakis, Ariadne Pratikaki, Ilias Loulakakis, Bart Lyrarakis. "**The MiB System: An interactive storytelling experience in the wine industry**". In Proceedings of the 13<sup>th</sup> International Conference on Information, Intelligence, Systems and Applications (IISA-22), 2022.
- Giorgos Flouris, Vasilis Efthymiou, Katerina Papantoniou, Theodore Patkos, Georgios Petasis, Nikiforos Pittaras, Dimitris Plexousakis, Giannis Roussakis, Elias Tzortzakakis, Elisjana Ymeralli. "**DebateLab Tools for E-journalism and Informed Citizenship**". In the 4<sup>th</sup> Summit on Gender Equality in Computing (GEC-22), 2022.

## 2021

- Vassiliades, Th. Patkos, G. Flouris, A. Bikakis, N. Bassiliades, D. Plexousakis, "**Abstract Argumentation Frameworks with Domain Assignments**". 30<sup>th</sup> International Joint Conference on Artificial Intelligence (IJCAI-21), pp. 2076-2082, Montreal, Canada, 2021.
- Alexandros Vassiliades, Nick Bassiliades, and Theodore Patkos, "**Argumentation and explainable artificial intelligence: A survey**". The Knowledge Engineering Review, 36, 2021.

- Katerina Papantoniou, Panagiotis Papadakos, Theodore Patkos, Giorgos Flouris, Ion Androutsopoulos, Dimitris Plexousakis, "**Deception Detection in Text and its Relation to the Cultural Dimension of Individualism-Collectivism**". Natural Language Engineering, pp 1-62, 2021.
- Alexandros Vassiliades, Giorgos Flouris, Theodore Patkos, Antonis Bikakis, Nick Bassiliades and Dimitris Plexousakis, "**A Multi Attack Argumentation Framework**", 4<sup>th</sup> International Conference on Logic and Argumentation (CLAR 2021), Hangzhou, China, 2021 (*Received a best paper award*)
- Alexandros Vassiliades, Theodore Patkos, Vasilis Efthymiou, Antonis Bikakis, Nick Bassiliades, Dimitris Plexousakis, "**Object-Action Association Extraction from Knowledge Graphs**". SEMANTICS'21, pp. 241-253, 2021.
- Ioannis Chrysakis, Giorgos Flouris, Maria Makridaki, Theodore Patkos, Yannis Roussakis, Samaritakis Giorgos, Nikoleta Tsampanaki, Elias Tzortzakakis, Elisjana Ymeralli, Tom Seymoens, Anastasia Dimou, and Ruben Verborgh, "**A Rewarding Framework for Crowdsourcing to Increase Privacy Awareness**". In the 35<sup>th</sup> Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec 2021), Calgary, Canada, 19-20/7 2021 (*Received a Best Paper Award*)
- Alexandros Vassiliades, Nikos Zarkadas, Nick Bassiliades, and Theodore Patkos, "**Onto-IKEA: A Knowledge Retrieval Framework based on IKEA Ontology**", 12<sup>th</sup> International Conference on Formal Ontology in Information Systems, Bolzano, Italy, 2021
- Kondylakis, H., Katehakis, D.G., Kouroubali, A., Marias, K., Flouris, G., Patkos, Th., Fundulaki, I., & Plexousakis, D. (2021). **CareKeeper: A Platforms for Intelligent Care Coordination**. Proceedings of 21st IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2021), Kragujevac, Serbia, October 25-27.
- Alexandros Vassiliades, Ilias Papadimitriou, Nick Bassiliades, Theodore Patkos, "**Visual Gorgias: A Mechanism for the Visualization of an Argumentation Dialogue**", to appear at the 25<sup>th</sup> Pan-Hellenic Conference on Informatics, Volos, Greece, 2021
- Alexandros Vassiliades, Nikos Bassiliades, Theodore Patkos, "**Commonsense Reasoning with Argumentation for Cognitive Robotics**", Proceedings of the 15<sup>th</sup> International Rule Challenge, 7<sup>th</sup> Industry Track, and 5<sup>th</sup> Doctoral Consortium @ RuleML+RR 2021, CEUR Workshop Proceedings, Vol. 2956, Belgium, 8-15 September, 2021

## 2020

- Filippos Gouidis, Alexandros Vassiliades, Theodore Patkos, Antonis Argyros, Nick Bassiliades, Dimitris Plexousakis, "**A Review on Intelligent Object Perception Methods Combining Knowledge-based Reasoning and Machine Learning**", AAAI-MAKE: Combining Machine Learning and Knowledge Engineering in Practice, AAAI Spring Symposia 2020, Stanford University, Palo Alto, California, USA, 2020
- Alexandros Vassiliades, Nick Bassiliades, Filippos Gouidis, and Theodore Patkos, "**A Knowledge Retrieval Framework for Household Objects and Actions with External Knowledge**". In: Blomqvist E. et al. (eds) Semantic Systems. In the Era of Knowledge Graphs. SEMANTICS 2020. Lecture Notes in Computer Science, pp 36-52, vol 12378, 2020.
- Alexandros Vassiliades, Theodore Patkos, Antonis Bikakis, Giorgos Flouris, Nick Bassiliades and Dimitris Plexousakis, "**Preliminary Notions of Arguments from Commonsense Knowledge**". In the 11<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 2020), p. 211-214 Athens, Greece, 2020.
- Ioannis Chrysakis, Giorgos Flouris, George Ioannidis, Maria Makridaki, Theodore Patkos, Yannis Roussakis, Georgios Samaritakis, Alexandru Stan, Nikoleta Tsabanaki, Elias Tzortzakakis and Elisjana Ymeralli, "**Evaluating the data privacy of mobile applications through crowdsourcing**", 33<sup>rd</sup> International Conference on Legal Knowledge and Information Systems (JURIX 2020), December 9-11, 2020.
- Alexandru Stan, Konstantina Geramani, George Ioannidis, Ioannis Chrysakis, Giorgos Flouris, Maria Makridaki, Theodore Patkos, Yannis Roussakis, Georgios Samaritakis, Nikoleta Tsampanaki, Elias Tzortzakakis, Elisjana Ymeralli, **CAP-A: A community-driven approach to privacy awareness**", In Proceedings of the NEM Summit 2020, B' Smart – European Media Science and Technology Meets Arts, Application, Experimental and Business Track, 2020.
- Ioannis Chrysakis, Giorgos Flouris, Theodore Patkos, Anastasia Dimou, Ruben Verborgh. **REWARD: Ontology for reward schemes**. In Poster Proceedings of the 17<sup>th</sup> Extended Semantic Web Conference (ESWC-20), p. 56-60, 2020.

2019

- Nikoleta Tsampanaki, Theodore Patkos, Giorgos Flouris, Dimitris Plexousakis, “**Revising event calculus theories to recover from unexpected observations**”, Annals of Mathematics and Artificial Intelligence 89, pages 209–236, 2019
- Dimitris Arampatzis, Maria Doulgeraki, Michalis Giannoulis, Evropi Stefanidi, Theodore Patkos, “**EduBAI: An Educational Platform for Logic-Based Reasoning**”. In: MacIntyre J., Maglogiannis I., Iliadis L., Pimenidis E. (eds) Artificial Intelligence Applications and Innovations. AIAI 2019, IFIP AICT 559, pp. 464–472, 2019

2018

- Filippos Gouidis, Theodore Patkos, Giorgos Flouris, Dimitris Plexousakis, “**Dynamic Repairing A\*: a Plan-Repairing Algorithm for Dynamic Domains**”, In proceedings of the 10<sup>th</sup> International Conference on Agents and Artificial Intelligence, 2018.
- Dimitra Zografistou, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis, “**Implementing the ArgQL Query Language**”, in Proceedings of the 7<sup>th</sup> International Conference on Computational Models of Argument (Comma-18), pp. 241-248, 2018
- Vangelis Kritsotakis, Yannis Roussakis, Theodore Patkos, Maria Theodoridou, “**Assistive Query Building for Semantic Data**”, in Poster/Demo Proceedings of the 14<sup>th</sup> European conference on Semantic Technologies and AI (SEMANTiCS-18), 2018  
*(Received a Best Demo and Poster Award) (blind review)*
- Prodormos Lilitis, Theodore Patkos, Giorgos Flouris, Dimitris Plexousakis, “**Travel Companion: A mobile system for trip assistance relying on Artificial Intelligence and Augmented Reality**”, Poster Session in the 10<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN-18), Patras 9-12 July, 2018.
- Giorgos Flouris, Theodore Patkos, Ioannis Chrysakis, Ioulia Konstantinou, Nikolay Nikolov, Panagiotis Papadakis, Jeremy Pitt, Dumitru Roman, Alexantru Stan, Chrysostomos Zeginis, “**Towards a Collective Awareness Platform for Privacy Concerns and Expectations**”, Confederated International Conferences: CoopIS, C&TC, and ODBASE 2018, Valletta, Malta, October 22-26, 2018

2017

- Elisjana Ymeralli, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis. “**APOPSIS: A Web-based Platform for the Analysis of Structured Dialogues**”. In Proceedings of the 16<sup>th</sup> International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE-17), 2017.
- Nikoleta Tsabanaki, Giorgos, Flouris, Theodore Patkos, “**Steps Towards Commonsense-Driven Belief Revision in the Event Calculus**”, In Proceedings of the 13<sup>th</sup> International Symposium on Commonsense Reasoning (Commonsense-17), 2017.
- Ioannis Chrysakis, Emmanouil Dermitzakis, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis. “**PRESS: A Publication REpository Semantic System**”. In Poster/Demo Proceedings of the 13<sup>th</sup> International Conference on Semantic Systems (SEMANTiCS-17), 2017.
- Giorgos Flouris, Theodore Patkos, Ilia Adami, Antonis Bikakis, Manos Dimitrakis, George Mathioudakis, Giannis Roussakis, Dimitris Plexousakis. “**Methinks: Enabling Sophisticated Comment Management in the Social Web**”. In Poster/Demo Proceedings of the 13<sup>th</sup> International Conference on Semantic Systems (SEMANTiCS-17), 2017.
- Keith G. Jeffery, Carlo Meghini, Cesare Concorsia, Theodore Patkos, Valerie Brasse, Jacco von Osssenbruck, Yannis Marketakis, Nikos Minadakis, Eda Marchetti “**A Reference Architecture for Virtual Research Environments**”, in the Proceedings of the 15<sup>th</sup> International Symposium of Information Science (ISI 2017), pages 76-88, 2017.

2016

- Theodore Patkos, Giorgos Flouris, Antonis Bikakis, “**A Multi-Aspect Evaluation Framework for Comments on the Social Web**”, in the 15<sup>th</sup> International Conference on Principles of Knowledge Representation and Reasoning (KR’16), pages 593-596, 2016.
- Theodore Patkos, Dimitris Plexousakis, Abdelghani Chibani, Yacine Amirat, “**An Event Calculus Production Rule System for Reasoning in Dynamic and Uncertain domains**”, in Theory and Practice of Logic Programming (TPLP) Volume 16, Issue 3, pp. 325-352, 2016.
- Theodore Patkos, Giorgos Flouris, Antonis Bikakis, “**Symmetric Multi-Aspect Evaluation of Comments - Extended Abstract**”, European Conference on Artificial Intelligence (ECAI’16), pp. 1672-1673, 2016.

- Yannis Tzitzikas, Carlo Allocca, Chryssoula Bekiari, Yannis Marketakis, Pavlos Fafalios, Martin Doerr, Nikos Minadakis, Theodore Patkos, Leonardo Candela, “**Unifying heterogeneous and distributed information about marine species through the top level ontology MarineTLO**”, Emerald Group Publishing Limited, Program, Vol. 50:1, pp. 16 - 40, 2016.
- Constantinos Varsos, Theodore Patkos, Anastasis Oulas, Christina Pavlodi, Alexandros Gougousis, Umer Zeeshan Ijaz, Irene Filiopoulou, Nikolaos Pattakos, Edward Vanden Berghe, Antonio Fernández-Guerra, Sarah Faulwetter, Eva Chatzinikolaou, Evangelos Pafilis, Chryssoula Bekiari, Martin Doerr, Christos Arvanitidis, “**Optimized R functions for analysis of ecological community data using the R virtual laboratory (RvLab)**”, Biodiversity Data Journal, 2016

#### 2015

- Martin Homola, Theodore Patkos, Giorgos Flouris, Jozef Frtus, Alexander Simko, Jan Seifranek, Dimitra Zografistou, Martin Balaz, “**Resolving Conflicts in Knowledge for Ambient Intelligence**”, The Knowledge Engineering Review (KER), Vol. 30:5, Cambridge University Press, pp. 455-513, 2015.
- Martin Homola, Theodore Patkos “**Different Types of Conflicting Knowledge in Aml Environments**”, In the 19<sup>th</sup> International Conference on Knowledge Engineering and Knowledge Management (EKWA 2014) Satellite Events, pp 52-63, 2015.
- Dimitra Zografistou, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis, Martin Baláz, Martin Homola and Alexander Simko, “**A dialogical model for collaborative decision making based on compromises**”, In the 12<sup>th</sup> European Conference on Multi-Agent Systems (EUMAS’14), pp 414-423, 2015.
- T. Patkos, G. Flouris, P. Papadacos, A. Bikakis, P. Casanovas, J. González-Conejero, R. Varela, A. Hunter, G. Idir, G. Ioannidis, M. Kacprzyk-Murawska, A. Nowak, J. Pitt, D. Plexousakis, A. Rychwalska, A. Stan, “**Privacy-by-Norms, Privacy Expectations in Online Interactions**”, 3<sup>rd</sup> IEEE International Workshop on Self-Adaptive and Self-Organising Systems (SASOW), pp 1-6, Cambridge, September 25, 2015.

#### 2014

- Filippos Gouidis, Theodore Patkos, Giorgos Flouris, Dimitris Plexousakis, “**Declarative Reasoning Approaches for Agent Coordination**”, 8th Hellenic Conference on Artificial Intelligence (SETN-14), pp. 489-503, Ioannina, May 15-17, 2014.
- Martin Homola, Theodore Patkos “**Different Types of Conflicting Knowledge in Aml Environments**”, In the 6th International Workshop on Acquisition, Representation and Reasoning about Context with Logic (ARCOE-Logic), 2014.
- Fedor Lehocki, Martin Homola, Theodore Patkos, “**Continuous Blood Pressure Monitoring in Telemedical Hypertension Application**”, Workshop on Smart Healthcare and Healing Environments in conjunction with the European Conference on Ambient Intelligence (Aml’14), Eindhoven, The Netherlands, 2014.

#### 2013

- Jiefei Ma, Rob Miller, Leora Morgenstern, Theodore Patkos, “**An Epistemic Event Calculus for ASP-based Reasoning About Knowledge of the Past, Present and Future**”, in the 19<sup>th</sup> International Conference on Logic for Programming, Artificial Intelligence and Reasoning (LPAR-19), Stellenbosch, South Africa, 2013.
- Rob Miller, Leora Morgenstern, Theodore Patkos, “**Reasoning About Knowledge and Action in an Epistemic Event Calculus**”, in the 11<sup>th</sup> International Symposium on Logical Formalizations of Commonsense Reasoning (Commonsense’13), 2013.
- Dimitris Plexousakis, Theodore Patkos, “**Calculi for Reasoning about Action and Knowledge**”, in the 9<sup>th</sup> Panhellenic Logic Symposium (PLS9), 2013.
- Yannis Tzitzikas, Carlo Allocca, Chryssoula Bekiari, Yannis Marketakis, Pavlos Fafalios, Martin Doerr, Nikos Minadakis, Theodore Patkos, and Leonardo Candela “**Integrating Heterogeneous and Distributed Information about Marine Species through a Top Level Ontology**”, in the 7<sup>th</sup> Metadata and Semantics Research Conference (MTSR’13), pp. 289-301, 2013.

#### 2012

- Theodore Patkos, Abdelghani Chibani, Dimitris Plexousakis and Yacine Amirat, “**A Production Rule-based Framework for Causal and Epistemic Reasoning**”, in the 6<sup>th</sup> International Symposium on Rules (RuleML’12), pp. 120-135, 2012.  
*(Received a Best Paper Award)*

- Beibei Hu, Theodore Patkos, Abdelghani Chibani and Amirat Yacine, “**Rule-based Context Assessment in Smart Cities**”, in the 6<sup>th</sup> International Conference on Web Reasoning and Rule Systems (RR'12), pp. 221-224, 2012.
- 2011**
- Theodore Patkos, Dimitris Plexousakis, “**Epistemic Reasoning for Ambient Intelligence**”, in Proceedings of 3<sup>rd</sup> International Conference on Agents and Artificial Intelligence (ICAART'11), pp. 242-248, 2011. (*blind review*)
  - Theodore Patkos, Dimitris Plexousakis, “**Efficient Epistemic Reasoning in Partially Observable Dynamic Domains Using Hidden Causal Dependencies**”, in the 9<sup>th</sup> International Workshop on Nonmonotonic Reasoning, Action and Change (NRAC 2011), pp 55-62, Barcelona, Spain, 2011.
- 2010**
- Theodore Patkos, Ioannis Chrysakis, Antonis Bikakis, Dimitris Plexousakis, Grigoris Antoniou, “**A Reasoning Framework for Ambient Intelligence**”, in Proceedings of 6<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 10), S. Konstantopoulos et al. (Eds.), LNAI 6040, Springer-Verlag pp. 213–222, Athens Greece, May 4-7, 2010. (*Nominated for Best Student Paper Award*) (*blind review*)
- 2009**
- Theodore Patkos, Dimitris Plexousakis. “**Reasoning with Knowledge, Action and Time in Dynamic and Uncertain Domains**”. Proceedings of the 21<sup>st</sup> International Joint Conference on Artificial Intelligence (IJCAI'09), Pasadena, California, USA, pp. 885-890, 2009. (*blind review*)
  - Theodore Patkos, Antonis Bikakis, Grigoris Antoniou, Maria Papadopoulou, Dimitris Plexousakis. “**Design and Challenges of a Semantics-based Framework for Context-Aware Services**”. International Journal of Reasoning-based Intelligent Systems (IJRIS), Vol. 1 (1/2), pp. 18-30, 2009.
  - Theodore Patkos, Dimitris Plexousakis. “**Sensing Inertial and Continuously-Changing World Features**”. 5<sup>th</sup> IFIP Conference on Artificial Intelligence Applications & Innovations (AIAI'09), Thessaloniki, Greece, pp. 379-388, 2009.
  - M. Kritsotakis, M. Michou, E. Nikoloudakis, A. Bikakis, T. Patkos, D. Plexousakis and G. Antoniou. “**Design and Implementation of a Semantics-based Contextual Navigation Guide for Indoor Environments**”. Journal of Ambient Intelligence and Smart Environments, Vol. 1(3), pp. 261-285, 2009.
  - E. Nikoloudakis, M. Kritsotakis, A. Bikakis, T. Patkos, D. Plexousakis and G. Antoniou. “**Exploiting Semantics for Indoor Navigation and User-Tracking**”. International Symposium on UbiCom Frontiers – Innovative Research, Systems and Technologies (UFirst 2009), Australia, pp. 149-154, 2009.
- 2008**
- Theodore Patkos, Dimitris Plexousakis. “**A Theory of Action, Knowledge and Time in the Event Calculus**”. 5<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN '08), Syros, Greece, pp. 226-238, 2008. (*Received a Best Student Paper Award*) (*blind review*)
  - M. Kritsotakis, M. Michou, E. Nikoloudakis, A. Bikakis, T. Patkos, D. Plexousakis and G. Antoniou “**C-NGINE: A Contextual Navigation Guide for Indoor Environments**”. European Conference on Ambient Intelligence (AmI 08), Nurnberg, Germany, pp. 258-275, 2008.
  - Maria Michou, Antonis Bikakis, Theodore Patkos, Grigoris Antoniou and Dimitris Plexousakis. “**A Semantics-based User Model for the Support of Personalized, Context-Aware Navigational Services**”. First International Workshop on Ontologies in Interactive Systems (ONTORACT'08), Liverpool, pp. 41-50, 2008.
- 2007**
- Theodore Patkos, Antonis Bikakis, Grigoris Antoniou, Maria Papadopoulou and Dimitris Plexousakis. “**Distributed AI for Ambient Intelligence: Issues and Challenges**”. In: Proc. 2nd European Conference on Ambient Intelligence (AmI-07), Darmstadt, Germany, pp. 159-176, 2007. (*blind review*)
  - Theodore Patkos, Antonis Bikakis, Grigoris Antoniou, Maria Papadopoulou and Dimitris Plexousakis. “**A Semantics-based Framework for Context - Aware Services: Lessons Learned and Challenges**”. In: Proc. 4th International Conference on Ubiquitous Intelligence and Computing (UIC -07), Hong Kong, China, pp. 839-848, 2007.

- Antonis Bikakis, Theodore Patkos, Grigoris Antoniou, and Dimitris Plexousakis. “**A Survey of Semantics-based Approaches for Context Reasoning in Ambient Intelligence**” In: Proc Workshop on Artificial Intelligence Methods for Ambient Intelligence, Germany, 2007.

**2006**

- Theodore Patkos, Antonis Bikakis, Grigoris Antoniou, Maria Papadopouli, Dimitris Plexousakis. “**A Semantic-based Framework for Context-Aware Pedestrian Guiding Services**”. Second International Workshop on Semantic Web Technology for Ubiquitous and Mobile Applications (SWUMA’06), Riva del Garda, Trentino, Italy, August 28, 2006.

**2005**

- Theodoros Patkos, Dimitris Plexousakis. “**A Semantic Marketplace of Peers Hosting Negotiating Intelligent Agents**”. In: Proceedings of the CAiSE’05 Forum, Porto, Portugal, pp. 3-8, 2005.
- Theodoros Patkos, Dimitris Plexousakis. “**A Semantic Marketplace of Negotiating Agents**”. In: Proceedings of the 4<sup>th</sup> International Workshop on Agents and Peer-to-Peer Computing (AP2PC’05), pp. 101-113, Utrecht, Netherlands, 2005.

**Technical Reports (4)**

- Filippou Gouidis, Theodore Patkos, Giorgos Flouris, Dimitris Plexousakis, “**The DRA\* Algorithm**”, FORTH TR-468, 2017.
- Theodore Patkos, Giorgos Flouris, Antonis Bikakis, “**Rating Comments on the Social Web using a Multi-Aspect Evaluation Framework**”, FORTH TR-463, 2016.
- Giorgos Flouris, Antonis Bikakis, Theodore Patkos, “**Globally Interconnecting Persuasive Arguments: The Vision of the Persuasive Web**”, FORTH TR-438, 2013.
- Martin Baláž, Giorgos Flouris, Jozef Frtús, Martin Homola, Theodore Patkos, Ján Šefránek, Alexander Šimko, Dimitra Zografistou, “**KR Methods to Deal with Conflicts in Aml Systems**”, Univerzita Komenského v Bratislave TR-041, 2013.

**Magazines and Others (10)**

- Patkos, T.; Viharos, Zs. J.: **Cognitive AI & Cobots** - Introduction to the Special Theme, ERCIM NEWS, EUROPEAN RESEARCH CONSORTIUM INFORMATICS & MATHEMATICS, Vol.132, pp. 6-7., 2023
- Christoforos Prasatzakis, Theodore Patkos and Dimitris Plexousakis, “**An Intuitive Architecture for a Chatbot that Exploits High-Level Reasoning for Human–Robot Interaction**”, ERCIM NEWS 134, p. 31-32, Special Theme: Explainable AI, July 2023
- Ioannis Chrysakis, Giorgos Flouris, Theodore Patkos and George Ioannidis, “**CAP-A – Raising Privacy Awareness Depends on Us!**”, ERCIM NEWS 126, p. 11-13, Special Theme: Privacy-Preserving Computation, July 2021
- Dimitrios Arampatzis, Maria Doulgeraki, Michail Giannoulis, Evropi Stefanidi, Theodore Patkos, “**An Educational Platform for Logic-based Reasoning**”, ERCIM News magazine Vol. 120, pp. 16-17, Special Theme: Educational Technology, January 2020
- Nena Basina, Theodore Patkos, Dimitris Plexousakis, “**ECAVI: A Teaching Assistant for Reasoning about Actions and Change**”, ERCIM News magazine Vol. 122, pp. 54-55, Special Theme: Solving Engineering Problems with Machine Learning, July 2020.
- Dimitra Zografistou, Giorgos Flouris, Theodore Patkos, Dimitris Plexousakis, “**A Language for Graphs of Interlinked Arguments**”. ERCIM News magazine Vol. 118, p. 48, 2019
- Nikoleta Tsabanaki, Theodore Patkos, Dimitris Plexousakis, “**Having Trouble Deciding Which Wine to Order? Try Le Sommelier Recommendation System**”, ERCIM News magazine, Vol. 113, p. 56, Special Theme: Smart Farming, April 2018.
- Elisjana Ymeralli, Theodore Patkos and Yannis Roussakis, “**APOPSIS: A Web-based Platform for the Analysis of Structured dialogues**”, ERCIM News magazine, Vol. 112 pp. 41-42, Special Theme: Quantum Computing, January 2018
- Filippou Gouidis, Theodore Patkos, Giorgos Flouris, “**Smart City Operation Center: A Platform to Optimize Urban Service Rendering**”, ERCIM News magazine, Vol. 98 pp. 49-50, Special Theme: Smart Cities, July 2014.
- Theodore Patkos, Dimitris Plexousakis, “**DECKT: Epistemic Reasoning for Ambient Intelligence**”, ERCIM News magazine, Vol. 84 pp. 30-31, Special Theme: Intelligent and Cognitive Systems, January 2011.

*Theses*

- Theodore Patkos, “**A Formal Theory for Reasoning About Action, Knowledge and Time**”, Doctor of Philosophy Thesis, Department of Computer Science, University of Crete, September 2010.
- Theodoros Patkos, “**A Semantic Marketplace of Peers Hosting Negotiating Intelligent Agents**”, Master of Science Thesis, Department of Computer Science, University of Crete, November 2004.
- Theodore Patkos, “**Resource Management Policies and Performance Issues for e-Commerce Servers**”, Bachelor Thesis, Department of Informatics, Aristotle University of Thessaloniki, June 2002.